



Project Lead the Way (PLTW) Biomedical Sciences Program

The PLTW Biomedical Sciences Program is a sequence of four high school courses, which follows a proven hands-on, real-world, problem-solving approach to learning. Students explore concepts of human medicine and are introduced to topics such as physiology, genetics, microbiology, and public health. Through activities such as dissecting a sheep heart or building their own heart pump, students examine processes, structures and interactions of the human body-often playing the role of biomedical professionals. They also explore prevention, diagnosis and treatment of disease while working collaboratively to investigate and design innovation solutions to the health challenges of the 21st century. This is considered a "STEM" curriculum with Common Core standards in ELA and Math already addressed. All courses are year-long.

Principles of Biomedical Sciences

Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia and infectious diseases.

Human Body Systems

Students examine the interactions of body systems as they explore identity, communication, power, movement, protection and homeostasis.

Medical Interventions

Students investigate a variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family.

Biomedical Innovation

In this capstone course, students apply their knowledge and skills to answer questions or solve problems related to biomedical sciences. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging, open-ended problems, and addressing topics such as clinical medicine, physiology, biomedical engineering, and public health.

For additional information about Project Lead the Way, go to <http://www.pltw.org> or contact the PLTW State Leader at: RHarris3@mt.gov